

N94- 27372**EMERGING COMPUTER TECHNOLOGIES AND THE NEWS MEDIA OF THE FUTURE**

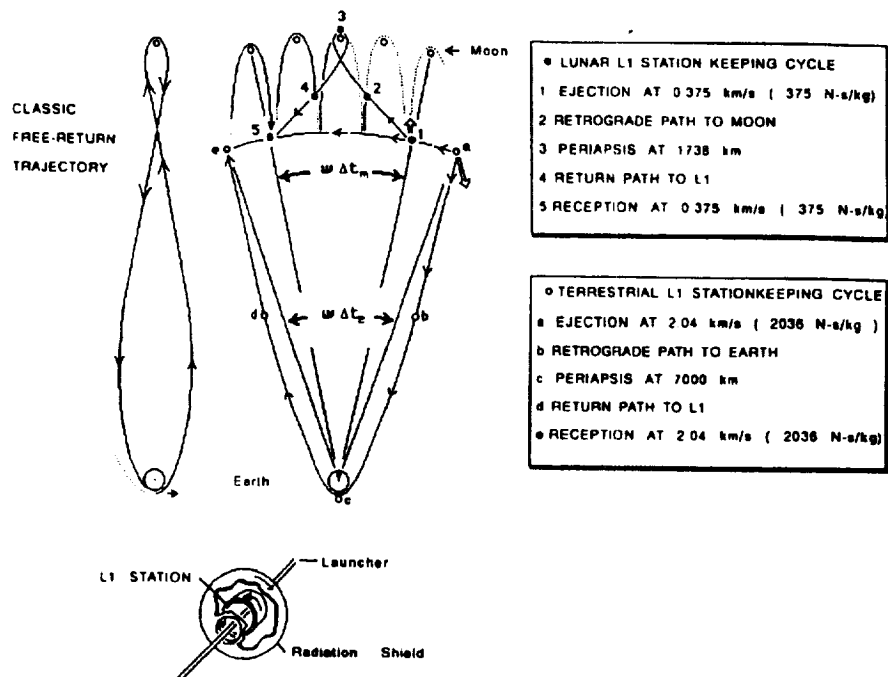
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**The 21st Century Media Environment:
More Pioneering Journalists Needed****ABSTRACT**

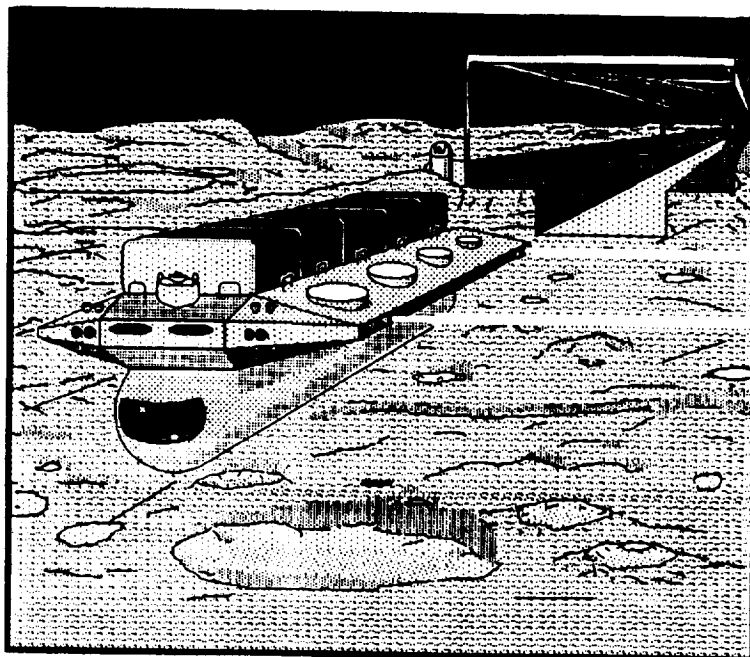
The media environment of the future may be dramatically different from what exists today. As new computing and communications technologies evolve and synthesize to form a global, integrated communications system of networks, public domain hardware and software, and consumer products, it will be possible for citizens to fulfill most information needs at any time and from any place, to obtain desired information easily and quickly, to obtain information in a variety of forms, and to experience and interact with information in a variety of ways. This system will transform almost every institution, every profession, and every aspect of human life---including the creation, packaging, and distribution of news and information by media organizations.

This paper presents one vision of a 21st century global information system and how it might be used by citizens. It surveys some of the technologies now on the market that are paving the way for new media environment.

GRAVITATIONAL MIRROR PROPULSION - L1 STATIONKEEPING



TWO-WAY EML PROPULSION - EML MOON LANDING



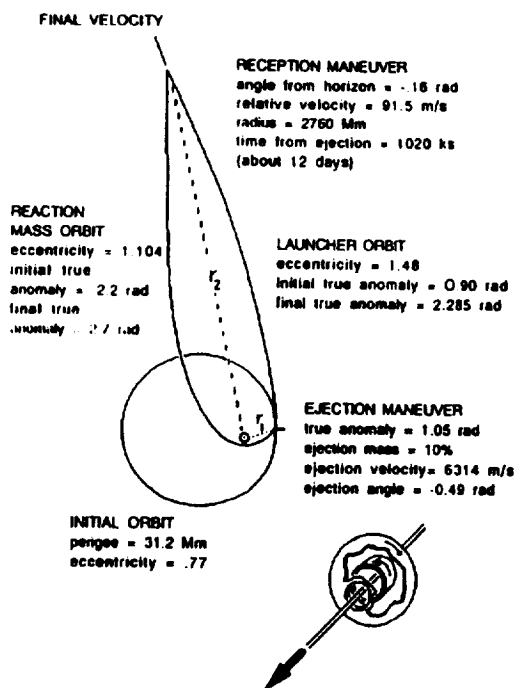
Velocity =
2.34 km/s

Altitude =
10 m

Location:
Congreve
Crater,
Farside

Heading:
270 (West)

GRAVITATIONAL "MIRROR" PROPULSION



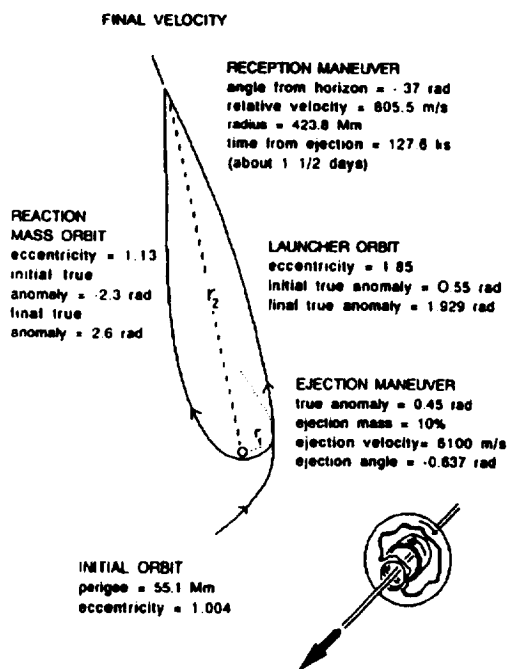
GRAVITATIONAL MIRROR MANEUVER

Escape From 135 x 31 Mm earth orbit:

- 2.236 km/s hyperbolic excess velocity
- Enough to reach Venus
- Enough to reach Mars at favorable opposition
- Minimum net launcher energy needed: 3.97 MJ/kg.
- Reaction mass recovered

Optimization and perigee maneuvers should yield even better performance.

GRAVITATIONAL "MIRROR" PROPULSION



GRAVITATIONAL MIRROR MANEUVER

Hyperbolic Orbit Boost

- 2 km/s gain in hyperbolic excess velocity
- Suggests addition to a "delta VEGA" maneuver
- Enough to reach Mars at favorable opposition
- Minimum net launcher energy needed: 2.45 MJ/kg.
- All reaction mass recovered

Optimization and perigee maneuvers should yield even better performance.

